

# Technical Datasheet

**takeMS TMS1GB364D08x-107xx**

## Description

These memory devices are JEDEC standard unbuffered DIMMs, based on CMOS DDR3 SDRAM technology using DDR3 SDRAMs in FBGA packages on a 240-pin glass epoxy substrate. The memory array is designed with Double Data Rate (DDR3) Synchronous DRAMs for unbuffered applications.

Fly-by command/address/control bus architecture of DDR3 SDRAMs allows for concurrent operation, thereby providing high, effective bandwidth. This main benefit of DDR3 is made possible by its 8 bit prefetch buffer. DDR3 memory ensures a power consumption reduction of 30% compared to DDR2 modules due to DDR3's 1.5 V supply voltage, also defined as "Enhanced low power features".

These modules feature Serial Presence Detect (SPD) based on a serial EEPROM device. DDR3 SPD programming is based on a speed bin. DDR3 latencies are numerically higher because the clock cycles by which they are measured are shorter. Absolute latency (ns) is generally equal to or faster than DDR2.

### Features

|   |
|---|
| 240-pin Unbuffered DDR3 SDRAM                               |
| JEDEC standard 1.5V I/O                                     |
| Fly-by command/address/control bus with on-DIMM termination |
| On-die I/O calibration engine                               |
| On-Die Termination (ODT)                                    |
| Serial Presence Detect (SPD) with EEPROM                    |
| High precision calibration resistors                        |
| Impedance controlled 6-layer PCB Technology                 |
| JEDEC standard form factor (133.35 mm x 30.0 mm)            |
| READ and WRITE calibration                                  |
| Improved thermal design                                     |
| Operating Temperature 0°C ~ 75°C                            |



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### Technical details

- 1024 MB longdimmm module
- 128Mx8 IC organisation
- x64 module organisation
- 1066MHz / PC3 8500
- single sided / 8 ICs
- CAS Latency 7 at max. memclock

For pin configuration please check [www.takems.com/support/index.php](http://www.takems.com/support/index.php)

If you have any questions regarding our products you can contact us via email: [info@takems.com](mailto:info@takems.com)

Order-No.: **TMS1GB364D08x-107xx**



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